

DETECTION OF INSURANCE PREMIUM FRAUD OR ABUSE USING A PREDICTIVE SOFTWARE SYSTEM

ABSTRACT OF THE DISCLOSURE

Detection of insurance premium fraud due to the misrepresentation of policy related information by the policyholder is provided by a predictive model, which uses derived variables to assess the likelihood of premium fraud for each policy. The variables are derived from data about the policy and similar peer policies. The variables capture selected information about the policy, changes over time in the policy's behavior or characteristics, and compare the policy with its peers. The predictive model produces a score for the policy, which is a measure of the likelihood of a misrepresentation of policy information, and thus premium fraud or abuse. It also provides information on the factors that most strongly contribute to the score. The predictive model is included in a system that accepts policies to be considered for scoring, selects which policies are appropriate for scoring, stores data about the policies in a database, uses the data to derive variables for the model, and processes and outputs the model scores and related information. A rule-based analysis, which detects specific inconsistencies in the data that are indicative of premium fraud, may also be part of the system. The rule-based analysis may analyze policies even if they were rejected for scoring by the predictive model. Policies may be presented to the system automatically or interactively. The model scores and red-flag indicators from the rule-based analysis may be further processed to provide customized output for users. Insurers use the results to identify suspects of premium fraud and to prioritize audits and other investigations.